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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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JACOBSON HOLMAN PLLC
400 SEVENTH STREET N.W.
SUITE 600
WASHINGTON, DC 20004

EXAMINER

RAMILLANO, LORE JANET

ART UNIT	PAPER NUMBER
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1743

DATE MAILED: 01/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/647,435	Applicant(s) TANIMOTO ET AL.	
	Examiner Lore Ramillano	Art Unit 1743	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 30-48 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 30-48 is/are rejected.
- 7) ☒ Claim(s) 37 and 41 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>8/26/03</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

1. Amendments filed on September 24, 2004 and February 8, 2005, are acknowledged. **Claims 1-29** are cancelled. **Claims 30-48** are pending in the application.

Claim Objections

2. **Claims 37 and 41** are objected to because of the following informalities:

the claims recite "an appliance," whereas, claim 46, recites "a device." Because claims 37 and 41 depend on claim 46, appropriate correction is required to make all three claims consistent in terminology.

3. **Claims 37 and 41** are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot refer to a preceding claim. See MPEP § 608.01(n). Thus, claims 37 and 41 are objected to because they both refer to claim 46.

Claim Interpretation

4. As to **claims 37 and 41**, the Examiner will interpret both claims as being dependent on claim 46 and that both claims are referring to a device rather than an appliance.

5. As to **claims 30, 43, and 46**, which contain intended use terms, the Examiner will interpret these claims in light of the structural elements that are disclosed and not for their intended use as stated after the term "for." The term, "for," is an intended use term. It has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from

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a prior art apparatus satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ2d 1647 (1987).

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. **Claim 33** is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 33 is rejected for failing to particularly point out and distinctly claim the subject matter because it contains both product and method limitations, whereby the method limitation recites "by screwing together through a threaded part of said heating section and a corresponding threaded part of said introducing section." Thus, because the method of forming the device is not germane to the issue of patentability of the device itself, this limitation will not be given patentable weight.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. **Claims 30 and 42** are rejected under 35 U.S.C. 102(b) as being anticipated by Hach (US 4025309).

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Hach discloses an appliance for determining the contents of an organic sample, which include sulfur, phosphorus, or trace heavy metals (column 2, line 20). The appliance comprises a heating section in the form of a tube (11, Fig. 1), which is open at only one of two opposing ends, has a length between the opposing ends greater than 10 cm, and is made of stainless steel that withstands corrosive gases, oxidative corrosion, and withstands temperatures exceeding 600 degrees Celsius (column 4, lines 31-44).

Hach further discloses an introducing section that cooperates with the open end of the tube to seal the open end (12, Fig. 1) and includes a means for allowing the liquid to flow into the heating section after the open end of tube is sealed (Fig. 1). In addition, the appliance is effected only by external means ("external electrical heater" 21, Fig. 1).

Moreover, Hach discloses a cooling means, which occurs after combustion of the sample is completed (column 2, lines 53-60).

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.

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2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

12. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

13. **Claims 31-36 and 38-40** are rejected under 35 U.S.C. 103(a) as being unpatentable over Hach in view of Peterson (US 3776695).

Hach does not specifically disclose an introducing means, which is a two-way cock or has a ground surface.

Peterson discloses an introducing means, which comprises of a stopcock assembly (3', Fig. 2), and a sealing element ("septum" 5', Fig. 2). Both the introducing means and the combustion section ("heating section" 7', Fig. 2) cooperate through their corresponding ground surfaces (column 5, lines 6-34, Fig. 2) and are kept airtight by the use of a tensioned spring means ("O-ring" 9', Fig. 2).

Peterson further discloses the use of scintillation solvents for water, such as mixtures of methanol and toluene, which enter the appliance through an inlet ("injecting means" 21', Fig. 2).

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It would have been obvious to a person of ordinary skill in the art to at the time of the claimed invention to modify the teachings of Hach with Peterson because one skilled in the art would have known to integrate a stopcock to control the amount of liquid flowing through the appliance and to include an O-ring to prevent contamination and leakage within the appliance.

14. **Claims 43, 47, and 48** are rejected under 35 U.S.C. 103(a) as being unpatentable over Hach in view of Peterson as applied to claims 31-41 above, and further in view of Flemming (US 4221997).

Hach does not specifically disclose an appliance-installing section or a moving means.

Flemming discloses an articulated robot arm with a mechanical hand for manipulating a workpiece ("appliance-installing section" and "moving means", column 5, lines 7-9).

It would have been obvious to a person of ordinary skill in the art to at the time of the claimed invention to modify the teachings of Hach with Flemming because one skilled in the art would have known to incorporate additional mechanical means to minimize the human health risks involved in handling volatile liquids and to allow the experiment to be repeated continuously.

15. **Claims 44 and 45** are rejected under 35 U.S.C. 103(a) as being unpatentable over Hach in view of Peterson as applied to claims 31-41 above, in view of Flemming as applied to claims 43, 47, and 48 above, and further in view of Pont (US 3716334).

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Hach does not specifically disclose a mixing means, a sampling means, and an analytical means.

Pont discloses a device for analyzing a sample containing halogens or sulphur, which is initially placed into a sealed envelope containing a reducing absorption liquid. The sample is then purged with oxygen and subjected to combustion, which converts the sample into inorganic compounds ("sampling means"). During this phase, the reducing absorption liquid, the converted sample, and other components circulate in the device, for example by a pump, a propeller, or any appropriate means ("mixing means"). As the liquid, sample, and other components circulate in the device, they are analyzed by a detection method, which include the coulometric or volumetric determination ("analyzing means"). (column 2, lines 26-64).

It would have been obvious to a person of ordinary skill in the art to modify Hach with Pont by incorporating the sampling, mixing, and analyzing means because it is known in the art to include a means for preparing the sample to undergo a chemical reaction, for ensuring all the chemical components are thoroughly mixed, and for having a method to analyze the sample, which are the essential means for conducting a chemical experiment.

Double Patenting

16. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory

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obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

17. **Claims 30-48** are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over **claims 8-13** of U. S. Patent No. 6,960,477. Although the conflicting claims are not identical, they are not patentably distinct from each other because they both recite substantially the same subject matter.

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Claims 30-42 recite substantially the same subject matter as disclosed in the patent because both encompass an apparatus that comprises a heating section and an introducing section with substantially similar limitations; and

Claims 43-48 recite the same subject matter as disclosed in the patent because both disclose a device for heat-decomposing a sample containing organics, which comprises a heating section, an introducing section, an appliance-installing section, a heating means, a moving means, a cooling means, an injecting means, a mixing means, a moving means, an analytical means, and a sampling means. In addition, the injection means in applicant's application and the wash device in the patent represent essentially the same limitation of the device because both consist of the same elements. Likewise, the moving means in applicant's application and the patent represent essentially the same limitation of the device because both consist of the same elements.

Therefore, **claims 30-48** are fully encompassed by **claims 8-13** of U. S. Patent No. 6,960,477.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lore Ramillano whose telephone number is (571) 272-7420. The examiner can normally be reached on Mon. to Fri. 8:00a to 5:30p.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden can be reached on (571) 272-1267. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Lore Ramillano
Examiner
Art Unit 1743


Jill Warden
Supervisory Patent Examiner
Technology Center 1700